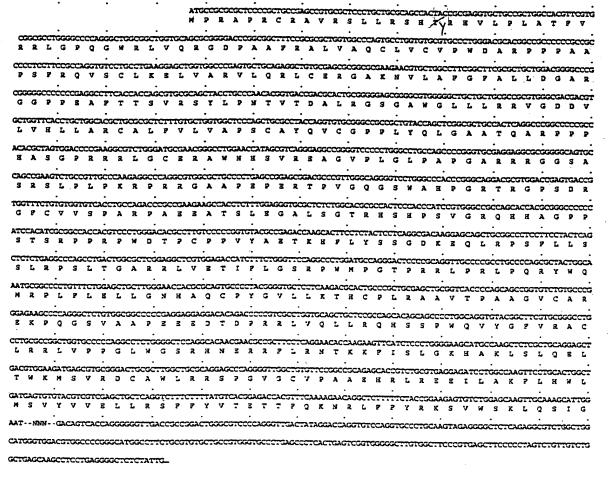


# RECEIVED

APR 0 1 2003

N-terminal truncated telomerase

ECH CENTER 1600/2900





# Truncated protein 1

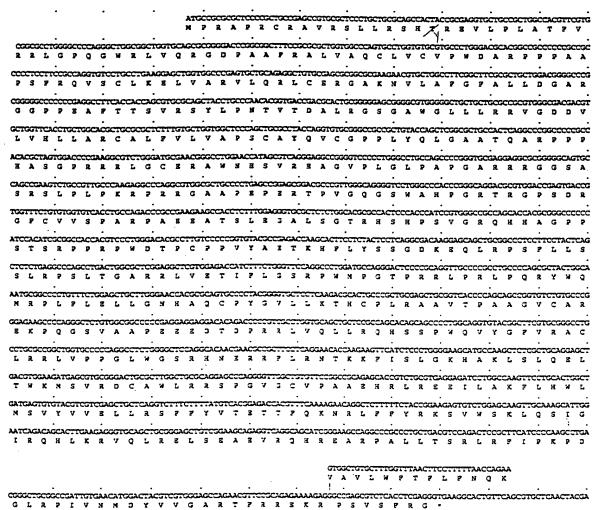
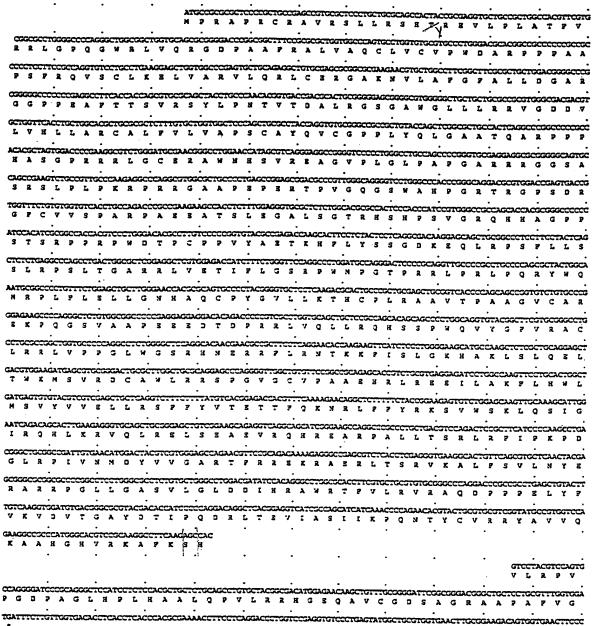


FIG. 11B



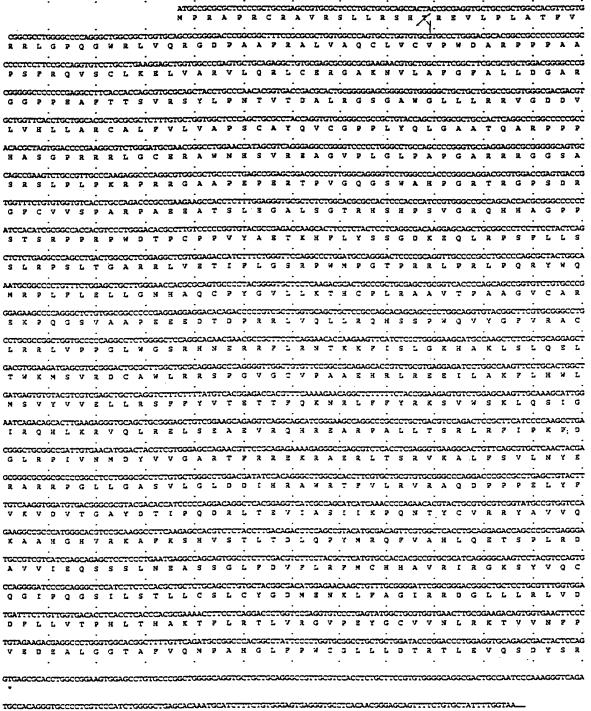
## Truncated protein 2



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### Truncated protein 3





# Altered C-terminus protein

ATECCGCCGCTCCCCGCCCACCCCACCCGTCCCCTGCTGCGCACCCACTACCGCGACGTGCTGCCGCTGGCCACGTTCGTG M P R A P R C R A V R S L L R S H X R E V L P L A T P V R R L G P Q G W R L V Q R G D P A A P R A L V A Q C L V C V P W D A R P P P A A P S P R Q V S C L K B L V A R V L Q R L C B R G A K N V L A P G P A L L D G A R CONSISTENCIA CONTROL OF THE ACT OF THE CONTROL OF T G G P P E A F T T S V R S Y L P N T V T D A L R G S G A W G L L R R V G D D V GETGGTTEACCTGCTGCTGCTGCTGCTGCTGGTGGGTCCCAGCTGCTGCCCTACCTGGGGCCGGCTGTTACCAGCTGGGGCTGCCACTCAGGCCCGGCC L V H L L A R C A L F V L V A P S C A Y Q V C G P P L Y Q L G A A T Q A R P P P ACACCCTAGTCGACCCCCAAGCCTTCTGCGATGCGAACCCCTGGAACCATAGCCTTCAGGACCCCGGGGTCCCCTGGGCCTGCCAGCCCCGGGTCCGAGGAGGACGACGGGGCAGTGC H A S G P R R L G C B R A W N H S 7 Z B A G V P L G L P A P G A R R G G S A S R S L P L P R R R R A A P B P B R T P V G Q G S W A H P G R T R G P S D R G P C V V S P A R P A B B A T S L B G A L S G T R B S H P S V G R Q H H A G P STSRPPRPW DTPCPPVYASTKRPLYSSGOKRQLRPSPLLS S L R P S L T G A R R L V S T I P L G S R P W M P G T P R R L P R L P Q R Y M A P L P L Z L L G N H A Q C P Y J V L L K T H C P L R A A V T P A A G V GARANGCCCCNGGGCTCTUTGGCGGCCCCCGAGGAGGACACACACCCCCGTCGTCGTCGTGCAGGTGCTGCTCGTCGAGCACACCACCCCTGGCAGGTGTACGGCTTCGTGCGGGCCTT E K P Q G S V A A P E E E D T D P R R L V Q L L R Q H S S P W Q V Y G P GACGTGGAAGATGAGGGTGCGGGACTGCGCTTGGCTGCGCAGGGACGCCAGGGTTGGCTGTGTTCCGGCCGAAGAGCACCGTCTGGCTGAGGGAAGATCCTGGCCAAAGTTCCTGGACTGGCT T W K M S V R D C A W L R R S P G V G C V P A A S H R L R E E I L A K F L H W L ANTENDACAGENETTORNOLOGOTIGECOGAGETSTECOGAAGEAGAGGTEAGGERGCATCOGGAAGCERGCCTGCCCCTGCTGACGTCCAGACTCCGCTTCATCCCCCAAGÉCTGA G L R P I V N M D Y V V G A R T F R R R R R A E R L T S R V K A L F S V L M Y E RARPGLLGASVLGLDDIARAWRTFVLRVRAQDPPPELYF K'V D V T G A Y D T I P Q D R L T S 7 I A S I I K P Q N T Y C V R R Y A V V Q CAACGCCCCCATCCGCACCGTCCCCAACGCCTTCAACACCCACGTCTCTACCTCCACCCGTTACATCCCACCACTTCGTCGCTCACCTGCAGGAGACCAGCCCGCTGAGGGA K A A H G H V R K A P K S H V S T L T D L Q P Y M R Q F V A H L Q E T S P L R D TECCETCETCATCGAGCAGACCTCCTCCCTGAATGAGGCCAGCAGTGGCCTCTTCGACCTTCTTACGTTCAACTTCAACTGCCACCACCCCGTGCGCATCAGGGCCAAGTCCTACGTCCAAGTG V V I B Q S S S L N E A S S G L ? Э 7 ? L R P M C H H A V R I R G K S Y V Q C Q G I P Q G S I L S T L L C S L C Y G D M S M K L F A G I R R D G L L R L V D TGATTTCTTGTTGGTGACACCTCACCTCACCCACACACCCTCCTCCACGACCCCTCAGCCCGACGACCACTCCCCGAAGACACTTCCCC LLVTPHLTHAKT?LRTLVRGVPRYGCVVNLRKTVVNFP TGTAGAAGACGAGGCCTTGGGGCCCTGTGGGCGCTTTTGTTCAGATGCCGGCCCCTATTCCCCTGGTGCGCGCTGGTGGTAATACCCGGAGCGTGGAGGAGCGACTACTCCGG E D E A L G G T A F V Q M P A H G L P P N C G L L D T R T L E V Q S D Y S S ARTSIRAS LTFN RGFKAGANN RRKLFGVLRLKCH SLFLD ADDITION OF THE PROPERTY OF TH TPPLRVISDTASLCYSILKAKNAS CCGAAGAAACATTTCTGTCGTGACTCCTGCGGTGCTTGGGTC BENILVVTPAVLGS

:Treedaggedaatteegetteggetteteaetteteaegettetetttteggeag

GGGACAGCCAGAGATGGAGCCACCCCGCAGACCGTTCGGGTTGTGGGCAGC

G Q P E M E P P R R P S G V G S P P V S P G R G V G L G L

OF THE TRANSPORT

#### Protein that lacks motif A

M P R A P R C 2 A V R S L L R S H T R E V L P L A T F COCCECTO CONTROL CONTR RRLGPQGWRLVQRGDPAAPRALVAQCLVCVPWDARPPPAA PSFRQVSCLKELVARVLQRLCERGAKNVLAFGFALLDGAR G G P P E A 7 T T S V R S Y L 7 N T V T D A L R G S G A W G L L R R V G D D V GETGGTTCACCTGCAGCACGCTGCGCGCTCTFFGTGCTGGCTGCCAACTGCGCCCTACAAGGTGTGCGGCCGTGTACCAGCTGGGGCTGCCACTCAGGCCCGGGCCCCGCC LVHLLARCALFVLVAPSCAYQVCGPPLYQLGAATQARPPP ACACGCTAGTGGACCCCCAAGGGGTCTGGGATGCGAACCGGCCTGGAACCATAGCGTCAGGGAGGCCGGGGTCCCCTGGGCCTGCCAGGCCCCGGGTGCGAGGAGGCCGGGGGAAGA HASGPRRALGCERAWN HS VREAGVPLGLPAPGARRGGSA S R S L P L P X R P R R G A A P B P B A T P V G Q G S W A H P G R T R G P S D R G P C V V S P A R P A B E A T S L B G A L S G T R H S H P S V G R Q H H A G P ST S R P P R P W D T P C P P V Y A Z T K H P L Y S S G D K E Q L R P S P L L S L R P S L T G A R R L V E T I F L G S R P W M P G T P R R L P R L P Q R Y W Q ANTICOGCCCOTTTTCTGACCTCCTTGGGACCACCGCAGTGCCCCTACGGGGTGCTCTCTCAAGACGCACTGCCCCTCCGAGCAGCCGGTGACCCAGCAGCAGCCGGTGTCTGTGCCCG B K P Q G S V A A P B Z E D T D P R R L V Q L L R Q H S S P W Q V Y G F V R A C L R R L V P P G L W G S R H N S R R F L R N T K K F L S L G K H A K L S L Q E L TRQHLKRYQLASLS SASVÄ QHASAR ALL TSRLR? T?K PD G L R P I V N M D Y V V G A R T P R R E R A E R L T S R V K A L P S V L N Y E TGTCAAG DRLTSVIASIIKPQNTYCVRRYAVV **KAAHGHVRKAPKSHVSTLTDLQ?YMRQ?VAHLQETSPL**RD д v v r g q s s s i м в д s s G L ? Э 7 ? L я ? м С н н д v к r к g к s y v Q C CEAGGGGATCCCCCAGGCCCCCATCCTCCCACCCTGCTGTGGAGGCTGTGGTACGAGGAACAAGCTGTTTTCCGGGGATTCGGGGGAGACGGCTGCTCCTGCGG Q G I P Q G S I L S T L L C S L C Y G D M E N K L F A G I R R D G L L L R L V D D P L L V T P H L T H A K T P L R T L V R G V P E Y G C V V N L R K T V V N P TGTAGAAGACGCCCTGGGTGGCACGGCTTTTGTTCAGATGCCGGCCCACTGCTGCTGCTGCTGCTGCTGGTACCCGGACCCTGGAGGTGCAGAGGACTACTCCAG EDEALGGTAFVQMPAHGLPPWCGLLLDTRTLEVQSDYSS CTATGCCCGGACCTCCATCAGAGCCAGTCTCACCGCGGGTTCAAGGCTGGGAGGAACATGCGTCGCAAACTCTTTGGGGTCTTGCGGCTGAAGTGTCACAGCCTGTTTCTGGA G T T L T A L E A A A M P A L P S D P K T I L D GGACCCTGGGAGCTCTGGGAATTTGGAGTGACCAAAGGTGTGCCCTGTACACAGGGGAGGACCCTGCACCTGGAGTGGAGTGCGTTCAAATTGGGGGAGGTGCTGTGGGAGTAA AATACTGAATATATGAGTTTTTCAGTTTTGA

# Truncated protein that lacks motif A

N P R A P R C R A V R S L L R S H Z REVLPLATE R R L G P Q G W R L V Q R G D P A A P R A L V A Q C L V C V P M D A R P P P A A COCCTCCTTCCCCCAGGTGTCCTCCCTGAAGGAGCTGGTGCCCCGAGTGCTGCAAGGCTGTGCGAGCGCCGCGCAAGAACGTGCTGGCCTTCGGCTTGGGCTGGACGGGGCCGG S F R Q V S C L K E L V A R V L Q R L C E R G A K N V L A F G F A L L D G G G P P B A F T T S V R S Y L P M T V T D A L R G S G A M G L L R R V G D D V GETGATTEACETGCTGCTGCTGCTGCTGCTTGTTGGTTGGTTGCTCCTAGCTGCTGCTGCTGCGGCCCCGCCTTATACCAGCTTGCGCCTTGCCACTCAGGCCCGGGCCCCCGCC LVHLLARCALF7LVAPSCAYQVCGPPLYQLGAATQARPPP ACACCCTACTGGACCCCGAAGGCGTCTGGGATGCGAACCGGGCTCGGAACCATAGCTTCAGGGAGGCCGGGTTCCCTCGGGCCTCCCAGGCCCCGGGTGCGAGGAGGCGGGGGCAGTCC H A S G P R R L G C B R A W M H S V A B A G V P L G L P A P G A R R G G S A S A S L P L P K R P R R G A A P Z P Z R T P V G Q G S W A H P G R T R G P S D R G P C V V S P A R P A R R A T S L R G A L S G T R H S H P S V G R Q H H A G P STSRPPRPWDTPCPPVYARTKHPLYSSGDKEQLRPSFLL CTCTCTGAGGCCCAGCCTGACTGGGGGCTCGTGGAGACCATCTTTCTGGGTTCCAGGCCCTGGATGCCAGGGACTCCCGGCAGGTTGCCCCGGCCGCCCCAGGCTACTGGCA S L R P S L T G A R R L V B T I F L G S R P W M P G T P R R L P R L P Q R Y W Q M R P L P L B L L G N H A Q C P Y G V L L K T H C P L R A A V T P A A G V C A R GENGNAGCCCCAGGGCTCTGTGGGGGGGCCCCCGAGGAGGAGGAGGACACAGACCCCCCTTGCCAGCTGGTGCAGCTCCCCCCCAGCACACAGCAGCCCCTTGGCAGGTTTACGGGTTTGCGGGGCCTT E K P Q G S V A A P E E E D T D P R R L V Q L L R Q H S S P W Q V Y G P V R A C GACGTGGAAGATGACCGTGCGGGACTCCCCTTGGCTGCGAGGGGCCCAGGGGTTGGCTTGTTCCGGCCGCAGGACCACCGTCTGCGTGAGGAGATCCTGGCCAAGGTTCCTGCACTGGCTGAGGAGTTCCTTGCACTGGCTGACGAGATCCTGGCCAAGGTTCCTGGCCAAGGTTCCTGGCTGACGAGATCCTGGCCAAGGTTCCTGAAGGTTCCTGGCCAAGGTTCCTGGCCAAGGTTCCTGAAGGTTCCTGGCCAAGGTTCCTGAAGGTTCTGGCCAAGGTTCAAGGTTCTGGCTAAGGTTCTGGCTAAGGTTCTGGCTAAGGTTCAAGGTTCTGGCTAAGGTTCTGGCTAAGGTTCAAGGTTAAGGTAAGGTTCTGGCTAAGGTTCAAGGTTAAGGTTAAGGTTAAGGTTAAGGTA GATGAGTGTGTACGTCGTCCAGCTGCTCAGGTGTTTCTTTATGTCACGGAGAGACCAGGTTTTTCTACCGGAAGAGAGTGTGTCGAGCAAGGTTGCAAACCATTGG
M S V Y V V Z L L R S P P Y V T E T T P Q X N R L P P Y R K S V W S K L Q S I G I R Q H L K R V Q L R 3 L 3 E A 3 V R Q H R 3 A R P A L L T S R L R P I P K P D ADDITICACION DE LA CONCORDIDACIA DE CONCORDIDACIA DE CONTROLA DE C G L R P I V N M D Y V V G A R T F R R R R A E R L T S R V K A L F S V L N Y E TGTCAAG  ${\tt cacaccetexcescaccetextexcecetextexaccecexcacaccetractecctecctrateccetecctecct}$ DRLTBVIASIIKPQNTYCVRRYAVVQ K A A H G H V R K A P K S H V S T L T D L Q P Y M R Q P V A H L Q S T S P L R D TOCCOTCOTCATCGAGCAGCACCACCCCTCGAATGAGCCCAGCAGTGGCCTCTTCGACCACTTCCTACCCTTCATGTGCCACCACCGCCGCGCATCAGGGGCAAGTGCTACGTCCAGTG A V V I E Q S S S L N B A S S G L ? D V ? L R ? M C H H A V R I R G K S Y V Q C  ${\tt ccases} anticces cases {\tt ccases} anticces {\tt ccases} anticce$ TGGTGGA Q G I P Q G S I L S T L L C S L C Y G D M E M K L F A G I R R D G L L R L V D TEATTTCTTGTTGGTGACACCTCACCTCACCCACACGCGAAAACCTTTCCTCACGACCCCTGGTGCGTGAGTATATGGCTGGTGAACTTGCGGAAGACAGTGGTGAACTTCCC FLLVTPHLTHAKTFLRTLVRGVPEYGCVVNLRKTV 

TGCCACAGGTTGCCCCTCGTCCCATCTGGGGCTGAGCACAAATGCATCTTTCTGTGGGAGTGAGGGTGCCTCACAACGGGAGCAGTTTTCTGTGCTATTTTTGTTAL



## Lacks motif A and altered C-terminus

y receeded control control received and received and received rece M P R A P R C R A V R S L L R S H T R E V L P L A T P R R L G P Q G W R L V Q R G D P A A P R A L V A Q C L V C V P W D A R P P P A A CCCCTCCTTCCCCCAGGTGTCCTGCAAGGAGCTGGTGGCCCGAGTGCTGCAGAGGCTGTGCAGAGCGCGGGGGGAAAACGTGCTGGCCTTCGGCTTCGGCTTGGACGGGGCCCG FRQVSCLKELVARVLQRLCERGAKNVLAFGFALLDGAR CGGGGCCCCCCGAGGCCTTCACCACCAGCGTGCCGAAGCTACCTGCCCAACACGGTGACCGACGCAACGGGGAGCGGGGCGGGGGCTGCTGCGCGCGGGGGAGCGACGACGA G G P P E A F T T S V R S Y L P M T V T D A L R G S G A M G L L R R V G D D V GCTGGTTCACCTGCTGGCACGCTGCTGCTGCTGGTGGCTCCCAGCTGCGCCTACCAGGTGTGCGGGCCCGCGCTGTACCAGGTGCGGCGCTGCCACTCAGGCCCGGCCC L V H L L A 2 C A L F V L V A P S C A Y Q V C G P P L Y Q L G A A T Q A R P P P H A S G P R R L G C E R A W N H S V A B A G V P L G L P A P G A R R G G S A S R S L P L P R R P R R G A A P B P Z R T P V G Q G S W A R P G R T R G P S D R G F C V V S P A R P A S E A T S L E G A L S G T R H S H P S V G R Q H H A G STSRPPRPWOTPCPPVYAZTKHPLYSSGDKEQLRPSPLLS S L R P S L T G A R R L V Z T I P L G S R P W M P G T P R R L P R L P Q R Y W Q ANTICOSCCCTGTTTCTGGAGCTGCTTCGGGAACCACGCGCAGTGCCCCTACGGGGTGCTCCTCAAGACGCAGTGCCGCTGCGAGCTGCGAGCTGCGAGCAGCAGCAGCTGCGGTTCTCTTGCCCG M R P L P L E L L G N H A Q C P Y G V L L K T H C P L R A A V T P A A G V C A R B K P Q G S V A A P E E E O T D P R R L V Q L L R Q H S S P W Q V Y G F V R A C W K M S V R D C A W L R R S ? G Y G C Y ? A A S H R L R B S I L A K ? L H W L V L G L D D I H R A W R T F V L R V R A Q D P P P B L Y F RARRGLLGAS  ${\tt GACAGGCTCACGGAGGTCATCGCCAGGATCATCAAACCCCCAGAACACGTTACTGCGTTCGGTTATGCCGTTGGTCCA}$ TGTCAAG R L T E 7 I A S I I K P Q N T Y C V R R Y A V V Q  ${\tt ccasee} anticces case {\tt ccase} anticces {\tt cc$ Q G I P Q G S I L S T L L C S L C Y G D M B N K L F A G I R R D G L L R L V D TGATTTCTTGTTGGTGACACCTCACCCCACCCGAAAACCTTCCTCAGGACCCTGGTCCGAGGTGTCCCTGAGTATGGCTGCGTGAACTTGCCGAAGAACTGCGTGAACTTCCC D F L L V T P H L T H A K T F L R T L V R G V P E Y G C V V N L R K T V V N P P EDEALGGTAFVQMPAHGLFPWCGLLDTRTLEVQSDYSS CTATGCCCGGACCTCCATCAGAGCCAGTCTCAACCTCCAACCGGCTTCAAGGCTGGGAGGAACATGCGGCAAACTCTTTGGGGTCTTGCGGCTGAAGTGTCACAGCCTGTTTCTGGA ARTSIRAS LT PN RG PKAGRNMARKL PG V L R L K C H S L P L D L Q V N S L Q T V C T N I Y K I L L L D A Y R F H A C V L Q L P F H Q Q V W K N T P F L R V I S D T A S L C Y S I L K A K N A E CCGAAGAAACATTTCTGTCGTGACTCCTGCGGTGCTTGGGTC E E N I L V V T P A V L G S

GGGACAGCCAGAGATGGACCCACCCCGCAGACCGTCGGGTGTGGGCAGCTTTCCGGTGTCTCCTGGACGGCAGGTGGGCCTGTGACTCCTCAGCCTCTGTTTTCCCCCCAG
G Q P 8 M 8 P P R R P S G V G S F P V S F G R G V G L G L +

WAR 27 MM LE

# N-terminal truncated telomerase (ver. 2)

M PRAPRCRAVES LLRSH TREVLPLAT PV concentrate contrate concentrate concentrate concentrate concentrate contrate contRRLGPQGWRLVQRGDPAAFRALVAQCLVCVPWDARPPPAA GECCTCCCCGGGGTCCGCGTCCGGCTTGAGGGGGTCCGGGGGAACCAGCGACATGCGGAGACCAGCGCAGCGACTCAGGGGGTTCCCCCGCAGGGG GLPGVGVRLGLRAAGGNQRHAESSAGDSGRPPRR ASPGSASGWG+GRPGGTSDMRRAAQATQGASPAG PPRGRPAGVEGGEGFATCGEQRRRLRALPPQV CCCCTCCTTCCCCCAGGTGTCCTGCAGGCAGGCTCGTGGCCGAGTGCTGCACAAGGCTGTGCCAAGAAAAAGGTGCTGGCCTTCGGCTTCGCGTGCAGGAAGAAGGGCCCCG PSFRQVSCLKELVARVLQRLCERGAKNVLAFGFALLDGAR G G P P B A P T T S V R S Y L P N T V T D A L R G S G A W G L L R R V G D D V LVHLLARCALFVLVAPSCAYQVCGPPLYQLGAATQARPPP HASGPARALGCERANN HSVREAGVPLGLPAPGARRGGSA S R S L P L P R R P R R G A A P R P R R T P V G Q G S W A H P G R T R G P S D R G F C V V S P A R P A E E A T S L E G A L S G T R H S H P S V G R Q H H A G P P STSRPPRPUDTPCPPVYAETKHPLYSSGDKEQLRPSPLLS OCAGANACCE CANGO CONTROLO CONT EKPQGSVAAPEEBDTDPRRLVQLLRQHSSPWQVYGFVRAC GACGTGGAAGATGAGCGTGCGGGACTGCGCTTGGCTGCGCAGGAGCCCAAGGGGTTTGGCTGTTTTCCGGCCGCAAGACCCCGTCTGCAGGAGAATCCTGGCCAAGTTCCTGCACTGGCT T W K M S V R D C A W L R R S P G V D C V P A A E H R L R E E I L A K F L H W L CATGGGTGGACGTGGCCCCGGGCATGGCCTTCTGGGTGTGCTGCCGTGGGGTGCCCTTCAGCCTTCAGTCGGGTGGCCTTCTGGCTTCCCGTGAGCTTCCCC GCTGAGCAAGCCTCCTGAGGGGGCTCTCTATTG

WAR 2 7 TOTAL TRADERS

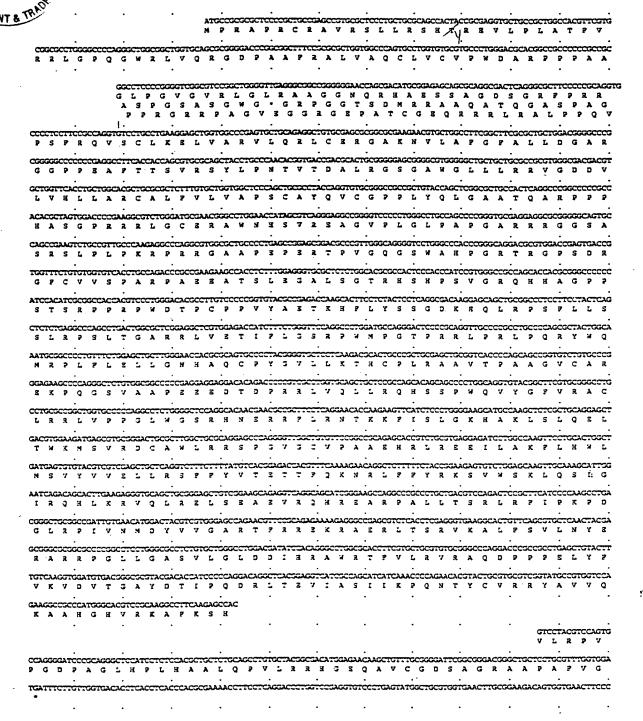
## Truncated protein 1 (ver. 2)

ATGCCGCGCGCTGCCCGCTGCCGTGCGCTCCCTGCTGCGCACCCACTACCGCGACGTGCTGCCCCACGTTCGTG M P R A P R C 2 A V R S L L R S H T R E V L P L A T P V COGNICTO GOOGLE CONTROL CONTRO R R L G P Q G W R L V Q R G D P A A F R A L V A Q C L V C V P W D A R P P P A A GGCTTCCCGGGGTCGGCTTCGGGTTGAGGGGGGCCCGGGGGAACCAGCGACATGCGGAAGAGAGCAGCGACTCAGGCGACTTCCCCCCGCAGGTG PGVGVRLGLRAAGGNQREAESSAGDSGRPP PGSASGWG \* G2PGGTSDMRRAAQATQGASP PPRGRRPAGVEGGRGEPATCGEQRRLRALPP CCCCTCCTTCCCCAAGTGTCCTGCAAGGAACTGGTGCCCGAATGCTGCAGAGGCTGTTGCGACGGGCGGAAGAACGTGCTGCCTTTCGGCTTCGACGGGCCCGA PSFRQVSCLKBLVARVLQ RLCBRGAKNVLAFG PALLDGAR G G P P B A F T T S V R S Y L P N T V T D A L R G S G A W G L L L R R V G D D V HASGPRARLGCERAWNES 7 REAGVPLGLPAPGARERGGSA CAGCCCAAGTCTCCCCTAGAGGCCCAGGCGTGGCCGTGGCCCTTGAGCCGGAGCGGAGCCGATTGGGCAGGGGGTCCTGGGCCACCGGGCAGGACGCGTGGACCGAGTGACCG SRSLPLPKRPRRGAAPBPBATPVGQGSWAHPGRTRGPSDR G F C V V S P A R P A B E A T S L E G A L S G T R H S H P S V G R Q H H A G P зтзярряриотесре V Y A 3 Т К H F L Y S S G D К E Q L я р S P L L GACGTGGAAGATGACCGTCCGGGACTTCGGCTGCGCAGGAGCCCAGGGGTTCGCTTCGCCCCAAGACCACCGTCTGCGCGAGGAGCACCGTCTGCGCCAAGTTCCTGCACTACGCT T W K M S V R D C A W L R R S P G V G I V P A A E R R L R E E I L A K P L H W L ADTOCOLOGICO DE ADTOCOLOGICO DE CONTROLOGICO DE CONTROLOGICO

GTGGCTGTGCTTTGGTTTAACTTCCTTTTTAACCAGAAVA A V L W F T F L F N Q K

COGGCTGCGGCCGATTGTGAACATGGACTACGTCGGGGGCCAGAACGTTCCGCAGAAAAAGAGGGCCGAGCGTCTCACCTCGAGGGGAAAAGAGGCACTGTTCAGCGTGAACTACGA
G L R P I V N M D Y V V G A R T P R R E X R P S V S P R G +

Truncated protein 2 (ver. 2)



Truncated protein 3 (ver. 2)

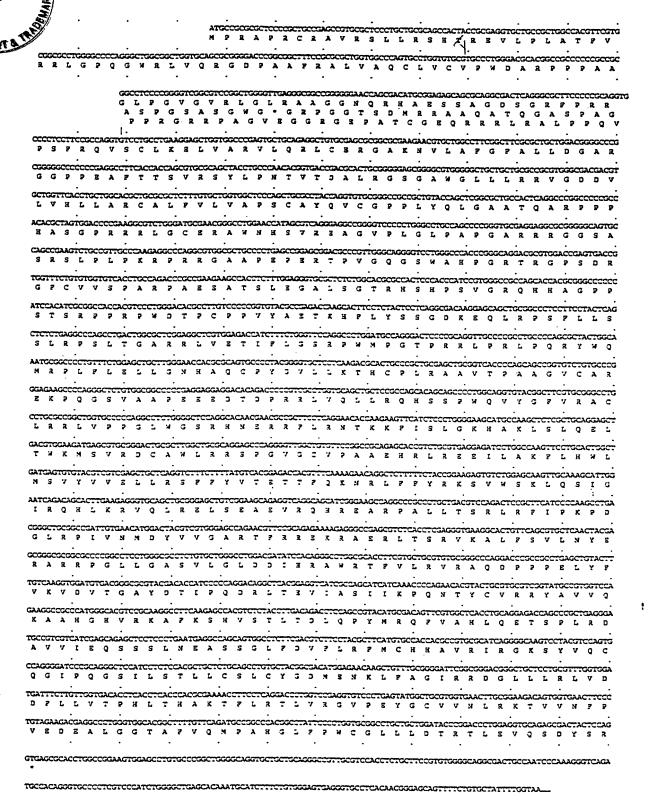


FIG. 11R

· 12 MAR 2 7 2003 TENT & TRADEN

Altered C-terminus protein (ver. 2)

APR 0 1 2003 ECH CENTER 1600/2900 ATGCCGCGCGCTCCCCGCTGCCGTGCGCTCCCTGCTGCGCACCCACTACCGCGAGGTGCTGCCGCTGGCCACGTTCGTG

N 7 R A P R C R A V R S L L R S H T R B V L P L A T coccected cocceted coccetedR R L G P Q G W R L V Q R G D P A A P R A L V A Q C L V C V P W D A R P P P A A GGCCTCCCCGGGTCGGCTCCGGCTTGGGGTTGAGGGCGGCCGCCGGAAACCAGCGACAACCAGCGCAACTCAGGGCGACTTCCCCCGCAGGTG P G V G V R L G L R A A G G N Q R H A E S S A G D S G R F P E P G S A S G W G \* G R P G G T S D M R R A A Q A T Q G A S P PPRGRRPAGVEGGZGEPATCGEQRARLRALP LVHLLARCALFVLVAPSCAYQVCGPPLYQLGAATQARPPP HASGPRRLGCBRAWNHSVREAGVPLGLPAPGARRGGSA S R S L P L P K R P R R G A A P S P E A T P V G Q G S W A H P G R T R G P S D R G P C V V S P A R P A B Z A T S L Z G A L S G T R H S H P S V G R Q H H A G P P ATTECNEATEGEGGCCACCACGTCCCTGGGACACGCCTTGTCCCCCGGGTGTACGCCCGAGCACCAGCACTACTCCTCACGCCGACAAGGACACGTCCGGGCCCTCCTTACTCAC T S R P P R P W D T P C P P 7 7 A 2 T K H P L Y S S G D K E Q L R P S P L L S CTCTCTGAGGCCCGACTGGCGGCTGGAGGCCTCTGGGAGGCTCTTCCTGGCTTCTTGGCAGGCCCTGGATGCCGAGGTTGCCGCAGGTTGCCGCAGGCTGCCGAGGTTGCCGCAGGTTGCCGCAGGTTGCCGCAGGTTGCCGCAGGTTGCCGCAGGTTGCCGCAGGTTGCCGCAGGTTGCCGCAGGTTGCAGGCCTAGGATGCCAGGTTGCAGGTTGCCAGGTTGCCAGGTTGCCAGGTTGCCAGGTTGCCAGGTTGCCAGGTTGCCAGGTTGCAGGTTGCCAGGTTGCAGGTTGCAGGTTGCAGGTTGCAGGTTGCAGGTTGCAGGTTGCAGGTTGCAGGTTGCCAGGTTGAGGTTGAGG S L R P S L T G A R R L V E T L P L G S R P W M P G T P R R L P R L P Q R Y W Q ANTIGOGGCCCTGTTTCTGGAAGCTGCTTGGGAACCACGCCAGTGCCCCTACCGGGTTGCTCTAGACGCAGCTGCCCCGTGCCGAGCTGCCCGGTGTCTCTGCCCG L E L L G N H A Q C P Y G Y L L K T H C P L R A A Y T P A A G Y C A R ANTCAGACAGCACTTGAAGAGGGGTGCAGCTGCGGGAGCTGTCCGAAGCAGCACGCCCAGCACTAGCACGCCCAGACGCCCAAACCCCCAAGCCTGA I A Q H L K R V Q L R E L S E A E V R Q H R E A R P A L L T S R L R P IPKP RARPGLLGASVLGLDDIRRAWRTFVLRVRAQOPPPEL D V T G A Y D T I P Q D R L T E V I A S I I K P Q N T Y C V R R Y A V V Q GAAGGCCCCCATGGGCACGTCCTCCGCCAAGACCACGTCTCTACCTTCACACACCTCCTACACGACACACTTCGTGGCTCACCTCCACGAGACCAGCCCGCCTGAGGGA K A A H G H V R K A F K S H V S T L T D L Q P Y M R Q F V A H L Q E T S P L R D  ${\tt ceases} and {\tt ceases} are {\tt ceases} and {\tt ceases} are {\tt c$ Q G I P Q G S I L S T L L C S L C Y G D M E N K L P A G I R R D G L L R L V D D P L L V T P H L T H A K T P L R T L V R G V P S Y G C V V N L R K T V V N P P TGTAGAAGACGAGGCCCTGGGTGGCACGGCTTTTGTTCAGATGCCGGCCCACGGCCTATTCC E D E A L G G T, A F V Q M P A H G L F P M C G L L D T R T L E V Q S D Y S S CTATGCCCGGACCTCCATCAGAGCCAGTCTCACCTTCAACCGGGGTTCAAGGGCTGGAGGACATAGCGTGCCAAACTCT.TCGGGTCTTGAGAGCTGTTCACAACCTGTTTCTCAGA Y A R T S I R A S L T F N R G F K A G R N N R R K L F G V L R L K C H S L F L D  ${\tt TTTGCAGGTGAACAGCCTCCAGACGGTGTGCACCAACATCTACAAGATCCTCCTGCTGCAGGCGTACAGGTTTCACCGCATGTGTGCTGCAGGTCCCATTTCATCAGCAAGATTTGGAAGAA$ L Q V N S L Q T V C T N I Y K I L L L L A Y R F H A C V L Q L P F H Q Q V W K N T F F L R V I S D T A S L C Y S I L K A K N A g CCGAAGAAAACATTTCTGTCGTGACTCCTGCGGTGCTTGGGTC BENILVVTPAVLGS

G Q P E M E P P R P S G V G S P P V S P G R G V G L G L .



ATGCCCGCGCCCCCCGCTGCCCCACCCCTGCCTGCTGCCGCACCCACTACCGCCACGTGCCGCCCACGTTCGTG N PRAPRCRAVES LLES EXREVLPLATE CONCENTRATE DESCRIPTION OF THE PROPERTY OF THE R R L G P Q G W R L V Q R G D P A A F R A L V A Q C L V C V P W D A R P P GCCCTCCCCGGGTTCGGCTTCGGGTTGAGGGCGGCCCGGGGAACCAGCGACATGCGGAGAGACGAGGCGACTCAGGCGACTTCCCCCGGAGGTG GVRLGLRAAGGNQRHAESSAGDSGRPPRR SASGWG\*GRPGGTSDMRRAAQATQGASPA G SASGWG PRGRRAGVEGGRGEPATCGEQRARL CCCCTCCTTCCGCCAGGTGTCCTCCCTGAAGGAGCTGTGGCCCGAAGTGCTGCAGAGCCTGTGCGAGCGGGCGAAGAACGTGCTGGGCTTCGGCTTCGGCTTCTGCACGGGCCCG PSFRQVSCLKELVARVLQRLCERGAKNVLAFGFALLDGAR G G P P B A P T T S V R S Y L P N T V T D A L R G S G A W G L L L R R V G D D V LVHLLARCALFVLVAPSCATQVCGPPLYQLGAATQARPPP ACACGCTACTGGACCCCGAAGGCGTCTGGGATCCGAACCGGCCTGGAACCATAGCTTCAGGGAGGCCGGGTCCCCTGGGCCTGCCAAGCCCCCGGGTGCGAGGAGGGCGGGGGAGTGC HASGPRRLGCERAUNHSVRZAGVPLGLPAPGARRGGSA S A S L P L P K A P R A G A A P B P B A T P V G Q G S W A H P G R T R G P S D R G F C V V S P A R P A B B A T S L B G A L S G T R H S H P S V G R Q H H A G P P T S R P P R P N D T P C P P V Y A Z T K H P L Y S S G D K B Q L R P S P L L S ANTICOGECCOTOTTTCTGGAGCTSCTTGGGAACCACGCCCAGTSCCCCTACCGGGTGCTCTCAAGACGCAGTGCCGGTGCGGTGACCCCAGCAGCAGCCGGTGTCTGTGCCCGG
M R P L F L B L L G N H A Q C P Y J V L L K T H C P L R A A V T P A A G V C A R GAGNANGCCCCAGGGCTCTGTGGCSGCCCCCGAGGAGGACACAAACCCCCTGGTGGTGGTGGTGGTGGCAGGACACACAACAACCACCCCTGGCAGGATGTACGGCTTCGTGGGGGGCCTG
& K P Q G S V A A P E E B D T D P R R L V J L L R Q R S S P W Q V Y G F V R A C GATGAGTGTGTACGTCGAGCTGCTCAGGTCT.TCTTTTATGTCACGGAGACCACGT.TCTAAAAGAACAGGCTCTTTTTCTACCGGAGGAGGTGTCTGGAGCAAGTTGCAAAGCATTGG
M S V Y V V Z L L R S P 7 Y V T & T T 7 2 X N R L F P Y R K S V W S K L Q S F G RQHLKRVQLRZLSSASVZZZZARPALLTSRLRFIPKPD COGGCTGCGGATTGTGAACATGGACTACGTCGTGGAGCAAGACGTTCGAGAAAAAGAGGGGGGACTGTCAACTACGTGGAGCACTGTTCAACTACGAGGACTGTTCAACTACGA G L A P I V N H D Y V V G A R T F R A B K R A E R L T S R V K A L P S V L N Y GEOGGEGGGGGCGCCGGCCTCTGGGCGCCTCTGTGCTGGGCCTGGACGATATCCACAGGCCTGGGCCCACACCTTCGTGCTGCGGCCCAGACCCAGACCCGCCCCCAGACCTGTACTT R A R P G L L G A S V L G L D D I B R A R T F V L R V R A Q D P P P E L Y F TGTCAAG D R L T B V I A S I I K P Q N T Y C V R R Y A V V Q K A A H G H V R K A P K S H V S T L T D L P V R A P K S H V S T L T D L P V A H L Q S T S P L R D LAFMCHHAVRIRGKSYVQC Q G I P Q G S I L S T L L C S L C Y 3 D M 3 M K L F A G I A R D G L L A L V D T P H L T H A K T F L R T L V R G V P E Y G C V V N L R K T V V N P CTATGCCCGGACCTCCATCAGAGCCAGTCTCACCCTCCACCCTCCAGCCTGGGAGCTGGGGAACATGCTTTGGGGACCTTTTGGGGTCTTGCGGCTGAAGTGTCACAGCCTGTTTTCTGGA
Y A R T S I R A S L T F N R G F K A G R N M R R K L F G V L R L K C H S L F L D TTTGCAGGTGAACAGCCTCCAGACGGTGTGCACCAACATCTACAAGATCCTCCTGCTGCAGGGTTTCAGGGATGTGCTGCAGCTCCCACTTTCATCAGCAAGTTTTGGAACAA LQVMSLQTVCTMIYKILLLQAYAPHACVLQLPPHQQVW PTPPLRVISDTASLCYSILKAKNAGNSLGAKGAAGPLP A V Q W L C H Q A F L L K L T R H R V T Y V P L L G S L R T A Q T Q L S R K L CASTISTICS OF STORY O ARDROTOSOARDOTOSOASTROSOASSTROSOTTSOSTTSOSOTTSOSOTTROSOTTATOTROSOSTRADESTRADESTRADESTRADESTRADESTROSOTTSOSOSTRADES

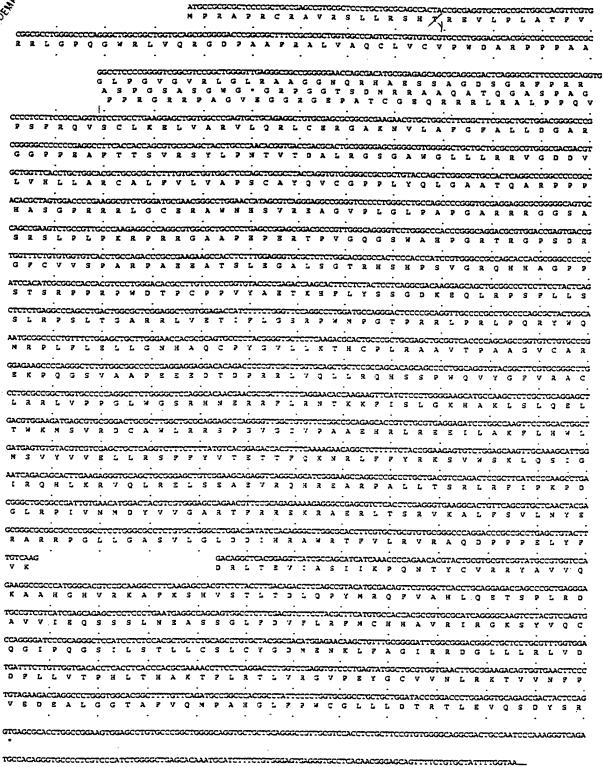
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AATACTGAATATATVAGTTTTTAGTTTTTA



MAR 2 7 MIS TO A COCCOCCO

Truncated protein that lacks motif A (ver. 2)



6

MAR 27 2003

MENT & TRACE!

APR 0 1 2003

M P R A P R C R A V R S L L R S H Z R R V L P L A T P R R L G P Q G W R L V Q R G D P A A P R A L V A Q C L V C V P W D A R P P P A A GECCTCCCCCCGCGTCCGCGTCCGGCTTEAGGCCGCCGGGGAACCAGCGACATGCGGAGACCAGCGAACTCAGGGGACTTCAGCGCACTTCCCCCGGAGGG L P G V G V R L G L R A A G G N Q R H A E S S A G D S G R P P R R S P G S A S G M G " G R P G G T S D M R R A A Q A T Q G A S P A C P R G R R P A G V Z G G R G E P A T C G E Q R R R L R A L P P Q FAQVSCLKELVARVLQRLCERGAKNVLAFGFALLDGAR E A F T T S V R S Y L P H T V T D A L R G S G A W G L L R R V G D D V  ${\tt screamed} constructed and {\tt screamed} c$ LVHLLARCALFVLVAPSCAYQVCGPPLYQLGAATQARPPP ACACGCTAGTGGACCCCGAAGCGTTCTGGGATGCGAACCGATGCGATGCGATGCGATGCGAGGCCTGCGGGGCTGCCCAGGCCTGCGAGGAGGAGGAGGGGGGGAAGTGC HASGPRR LGCERAWN HSV REAGVP LG LPAPGARR RGGSA S R S L P L P X R P R R G A A P Z P S R T P V G Q G S W A H P G R T R G P S D R G P C V V S P A R P A B S A T S L Z G A L S G T R H S H P S V G R Q H H A G P STSRPPRPWOTPCPPVYASTKHPLYSSGDKEQLRPSPLLS creates a considerate a considerate and a consS L R P S L T G A R R L V Z T I P L O S R P W M P G T P R R L P R L P Q R Y M R P L P L E L L S N H A Q C P Y S V L L X T H C P L R A A V T P A A G V C E K P Q G S V A A P E E E O T O P R R L 7 Q L L R Q R S S P H Q V Y G F V R A C  $\tt cercocrecticatical considerations of the properties of the pro$ L R R L V P P G L W G S R H N E R R F L A N T K K P I S L G K H A K L S L Q E L CACGTGGAAGATGAGCGTGCGGGACTGCGCTTTGGCTGCGCAGGAGCCCCAGGGGTTTAGCTGTGT CCCGCCGCAGAGCACCGTCTGCGTGAGGAGATCCTGGCCAAGTTGCTGCACTGGCT TWKMSVRDCAWLRRSPGVGCVPAAZHRLRSEILAKFLHW.L M S V Y V V Z L R S F F Y V T Z T T F Q K N R L F F Y R X S V WSKLQSIG ANTCAGACAGCACTTGAAGAGGGTGCAGCTGCGGAGCTGTCGGAAGCAGAGCTGAGCCTAGCAGACTCGAACTCGAACTCCGCTTCATCCCCAAGCCTGA I R Q H L K R V Q L R E L S E A E V R Q H R E A R P A L L T S R L R P I P COGGCTOCCGCCGATTOTGAACATCGACTACCTCGTCGTCGAGAACGTTCCCCAGAGAAAAGACGCCCGAGCGTCTCACCTCGACGGTGAACGACTGTTCAGCGTCTCAACTACGA G L R P I V N M D Y V V G A R T P R R Z X R A S R L T S R V K A L F S V RARRPGLLGASVLGLDDIHRAWRTPVLRVRAQDPPPBLY D A L T E V : A S I I K P Q N T Y C V R R Y A V V Q K A A H G H V R K A F K S H V S T L T D L Q P Y M R Q F V A H L Q E T S P L R D VIEQSSSLNEASSGLFDVFLRFMCHHAVRIRGKSYVQC CCAGGGGATCCCGCAGGGCTCCATCCTCCCAGGCTGCTCTGCAGGCTGTGCTACGGCGACATGGAGAACAAGCTGTTTGCGGGGAATTCGGCGGAACGGGGTGCTCCTGCGTTTGGTGGA Q G I P Q G S I L S T L L C S L C Y G D M Z N K L F A G I R R D G L L R L V D TOTAGAAGACGAGGCCCTGGGTGGCACGGCTTTTGTTCAGATGCCGGCCCCACGGCCTATTCCCCTGGTGCGGCCTGCTGCTGGATACCCCGGACCCTGGAGGTGCAGAGCGACTACTCCAG
V E D E A L G G T A F V Q M P A H G L F P N C G L L L D T R T L E V Q S D Y S S CTATGCCCGGACCTCCATCAGAGCCAGTCTCACCCTTCAACCGCGGCTTCAAGGCTGGGAGGACATCGCTGCCAAACTCTTTGGGGTC.TGGGGCTGAAGTGTCACAGCCTGTTTCTGGA Y A R T S I R A S L T F M R G F K A G R M M R R K L F G V L R L K C H S L F L D TTTGCAGGTGAACAGCCTCCAGACGGTGTGCACCAACATCTACAAGATCCTCCTGCTGCAGGCGTACAGGTTTCACGCATGTGTGCTGCAGGCTCCCATTTCATCAGCAAGTTTTGGAAGAA L Q V N S L Q T V C T N I Y X I L L Q A Y R P H A C V L Q L P F H Q Q V PTFLRVISOTASLCYSILKAKNA CCGAAGAAAACATTTCTGTCGTGACTCCTGCGGTGCTTGGGTC E E N I L V V T P A V L G S GEGRANGE TO AND TO CONTROL OF THE PROPERTY OF THE CONTROL OF THE C G Q P E M E P P R R P S G V G S P P V S P G R G V G L G L